

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

May 20, 2008

TO: Internal File

THRU: Priscilla Burton, Team Lead *AMB by SAS*
Daron Haddock, Permit Supervisor *DRH*

FROM: Wayne H. Western Environmental Scientist III *Witw*

SUBJECT: Permit Application – Coal Hollow Mine, Alton Coal Development, LLC, Kane County C/025/005, Task ID #2910,

SUMMARY:

This is a new permit application. The Division received the application on January 24, 2008. The Division determined the application administratively complete on March 14, 2008.

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TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

The Applicant did not meet the minimum requirements of this section. In Section 116.100 and Plates 1-3 and 1-4 of the PAP, the Applicant did list the number of acres that will be associated with each phase of mining and did state that mining is on fee land only. However, the Applicant must state in the PAP the legal description of the permit area and include the number of federal, state and fee acres within the permit area.

The Applicant must correctly identify the permit area on the maps. The Applicant used the term "project area." That term is confusing because it is not defined in the R645 rules while the term "permit area" is defined in Section R645-100 of the Utah Coal Rules.

The Applicant must include in the permit area the portions of Kane County Road 136 that are under control of the Applicant within the permit area. The Division considers the area to be under control of the Applicant if they can limit access to that section of road.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-521.190, The Applicant must state in the PAP the legal description of the permit area and include the number of federal, state and fee acres. The Division suggests the information be in table format and be located in Chapter 1 of the PAP. Even if there are no federal or State acreages the table is requested. [WW]

R645-301-521, The Applicant must change the term *project area* to *permit boundary* on each map in submittal. The term project area is not defined in Section R645.100 of the Utah Coal Rules while the term permit boundary is. •The Applicant must

also include all areas under control of the Applicant such as access routes to Kane County Road 136, and any portion of roads that the Applicant has exclusive control over (access route around Alton).[WW]

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Affected Area Boundary Maps

The Applicant did not meet the requirements of this section of the regulations. Maps 1-2, Project Area LBA shows the project area and the proposed expansion for the federal leases (see also pg. 1-7 and Dwg 5-2). The Applicant must show the boundaries over the estimated total life of the coal mine of each subarea for which they anticipate that additional permits will be sought. The Division needs to know the anticipated dates when additional areas will be added to the permit boundary because the preferred reclamation scenario is based on the assumption that the Applicant will increase the permit area.

Map 5-10, Coal Removal Sequence, does not show the anticipated dates for when coal would be mined in the expansion areas. The Division needs that information to do analysis that involves expansion of the permit areas.

Existing Structures and Facilities Maps

The Applicant did not meet the requirements of this section. The buildings shown on Drawing 1-1 are from a USGS topographic map and the description is generic. The Applicant must specifically state what types of buildings are in or near the permit boundary. The Division needs that information because of other rules that address buildings that are outside the permit area.

Existing Surface Configuration Maps

The Applicant did not meet the requirements of this section. In Section 521.150 of the PAP, the Applicant states that for much of the permit area the accuracy of the original contour map was 5 feet. The Applicant then interpolated the information to construct 2-foot contours. The Division does not want contours that the Applicant interpolated. The Applicant must provide the Division with maps that show the original topographic contours only.

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Mine Workings Maps

The Applicant did not meet the requirements of this section. The Applicant stated in Section 521.110 "Not Applicable". The Division has information on several coal mines in the area. The Applicant must mention that some mining has occurred in the area and where or not the mines were surface or underground.

Doelling lists the following mines near Alton:

- Seaman Mine
- Smirl Mine
- Alton Mine
- Johnson Mine
- Silver Mine

Permit Area Boundary Maps

The Applicant did not meet the requirements of this section. The Applicant showed on Drawing 5-3 that access to the mine would be from a road branching off from a closed portion of Kane County Road 136. That access road must be included within the permit area. In addition, the Applicant must also include within the permit area any portion of the County Road for which they control access.

Surface and Subsurface Manmade Features Maps

The Applicant did meet the requirements of this section. In Section 521.122 of the PAP, the Applicant states "Not Applicable".

Surface and Subsurface Ownership Maps

The Applicant met the requirements of this section. The Applicant provided Drawing 1-3 Surface Ownership and Drawing 1-4 Coal Ownership, which show surface and coal ownership.

Findings:

The information provided in the application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

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R645-301-521.141, The Applicant must show on Map 5-10 or a similar map the anticipated dates for when the Applicant would mine coal from the expansion areas. The Division needs that information to do analysis that involves expansion of the permit areas. The Division needs to know the dates when the Applicant anticipates acquiring additional subareas because the preferred reclamation plan is based on additions to the permit area. .[WW]

R645-301-521.120, The Applicant must show on Drawing 1-1 the specific type of buildings and structures that are in or near the permit boundary. The buildings shown on Drawing 1-1 are from a USGS topographic map and the description is generic. The Division needs to know the type of buildings within 1,000 feet of the permit boundary because other regulations direct what actions must be taken based on the type of building. .[WW]

R645-301-521.150, The Applicant states that for much of the permit area the accuracy of the original contour map was 5 feet. The Applicant then interpolated the information to construct 2-foot contours. The Division cannot rely upon contours that the Applicant interpolated. The Applicant must provide the Division with maps and cross sections based on the original topographic maps. .[WW]

R645-301-521.132, The Applicant must update all permit area boundaries to show that the access road from the close section of County Road 136 to the mine site will be within the permit area.[WW]

R645-301-121.200, The Applicant cannot use "Not Applicable" to state how they met the requirements of the Utah Coal Rules. The Applicant must state that features like previously mined area and man-made features are not present rather than those items are "Not Applicable". [WW]

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

The Applicant did not meet the general requirements of this section. Those general requirements include:

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- In Section 523 the Applicant described the type of coal mining procedures, anticipated annual and total production of coal, by tonnage, and some major equipment they will use for all aspects of those operations.
- In Section 536, Section 528 and Section 553 the Applicant described the construction, operation and reclamation of the mine facilities. The Division will analyze specific facilities in other sections of the TA.

The Applicant has described a 2MT, 24 hr/day 6 day/week operation in Introduction to the PAP. In consultations with the Governor's Office in 2005 and with the DEQ and DOGM in 2007, the Applicant described a 2 MT, 2 shift/day, 6 day/week operation. As explained to the Governor's Office in 2005, the initial decision for a 2 shift work day was made to avoid night sky issues that were raised in the Cecil Andrus 1980 Suitability decision (Ex. 3, App. 1-3). The night sky issue has been raised by commenters during the recent public comment period and by the USFS and Bryce Canyon National Park in comments provided to the Division. The application must explain the equipment required for lighting the 24 hour operation and the effect on the night sky as seen from Bryce Canyon National Park and the Dixie National Forest

Findings

The information provided in the application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-526.220, The application must describe the equipment required for lighting the 24 hour operation and the effect on the night sky as seen from Bryce Canyon National Park and the Dixie National Forest. [PB, WW]

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR 784.12; R645-301-526.

Analysis:

In Section 526.100 of the PAP, the Applicant states that there are no existing structures within the permit area.

Findings

The information provided in the application is considered adequate to meet the requirements of this section.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

Analysis:

The Applicant did not meet the requirement of this section. The Applicant must provide the Division with detailed information on the relocation of Kane County Road 136. The Applicant must state:

- The Party that will be in charge of relocating Kane County Road 136, (Kane County or the Applicant.)
- That the Kane County Road 136 will be restored to the original configuration after mining and who will be responsible for the re-establishment of the road in its original configuration.
- Whether the relocated portion of Kane County Road 136 will remain after mining operations have ceased.

If the Applicant will be in charge of relocation then they must show how the interests of the public will be protected. One item that the Division would need to see is agreements with the County.

Findings:

The information provided in the application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-526.116, The application must state whether Alton Coal Resources, LLC. or Kane County will take charge of the County Road 136 re-alignment and subsequent reclamation. • Details of the public road 136 re-alignment must included as an appendix to the application and include the use of cattle guards and fencing in the design (requested during informal conference comment period) and describe measures for protection of the public during construction. • The reclamation plan narratives and maps must be revised to describe construction of the road in its approximate original alignment. [PB,WW]

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COAL RECOVERY

Regulatory Reference: 30 CFR 817.59; R645-301-522.

Analysis:

The Applicant met the minimum requirements of this section. The Applicant outlined the procedure for coal recover in Section 522 of the PAP. The Division reviewed the coal recovery plan and determined that the Applicant used prudent engineering methods for maximizing coal recovery.

Findings:

The information provided in the application is considered adequate to meet the requirements of this section.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

The Applicant met the requirements of this section. The Applicant will not subside any areas within the permit boundary because they will not use underground mining methods.

Findings:

The information provided in the application is considered adequate to meet the requirements of this section.

SLIDES AND OTHER DAMAGE

Regulatory Reference: 30 CFR Sec. 817.99; R645-301-515.

Analysis:

The Applicant met the requirements of this section. In Section 515.100 of the PAP, the Applicant described the procedures for contacting the Division in the event of a slide, which may have a potential adverse effect on public, property, health, safety or the environment.

In Section 515.200 of the PAP, the Applicant described the procedure for contacting the Division in the event that the Applicant's inspection of an impoundment they discover a potential hazard.

Findings:

The information provided in the application is considered adequate to meet the requirements of this section.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

Road Classification System

The Applicant did not meet the requirements of this section. The Applicant stated that all roads within the permit would be ancillary except for two haul roads.

A primary road is defined as a road upon which coal or spoil is hauled or used frequently for a period in excess of six months. An ancillary road is defined as all other roads. The Division will not grant blanket approval classifying all new roads as ancillary.

Plans and Drawings

The Applicant did not meet the requirements of this section. The Applicant did not include information about the relocation of County Road 136.

The Applicant is required to include plans and drawings for each road that contain the following:

- A map, appropriate cross sections, design drawings, and specifications for road widths, gradients, surfacing materials, cuts, fill embankments, culverts, bridges, drainage ditches, low-water crossings, and drainage structures. The Applicant shows the basic designs for

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the primary roads in Section 527.170 and on Drawing 22 and Drawing 23. The Applicant provided the information listed above. For clarity each roads must have it own identification name or number.

- Drawings and specifications of each proposed road that is located in the channel of an intermittent or perennial stream. The Applicant gave the designs for the stream crossings in Section 527.170 and on Drawing 22 and Drawing 23.
- Drawings and specifications for each proposed ford of perennial or intermittent streams that are used as a temporary route. The Applicant does not propose to have temporary routes thru perennial or intermittent streams.
- Measures to be taken to obtain approval of the Division for alteration or relocation of a natural stream channel. In Section 527.220 of the PAP, the Applicant states that there will be no stream diversions for road construction. The Applicant then goes on to state that a permanent diversion will occur in Lower Robinson Creek, consistent with information presented on Drawing 22. The Applicant should modify the comment in Section 527.200 of the PAP to acknowledge that there will be a permanent diversion in Lower Robinson Creek to allow for maximum economic recovery, but not to facilitate road construction.
- Drawings and specifications for each low-water crossing of perennial or intermittent stream channels. In Section 534.100-200 of the PAP, the Applicant states that they will not do such activities.

In addition to the above, the Applicant will provide primary roads shall meet the following requirements for primary roads:

- A qualified registered professional engineer shall certify the construction or reconstruction of primary roads in a report to the Division. The certified designs are on Drawing 22 and Drawing 23.
- Each primary road embankment shall have a minimum static factor of 1.3. The Applicant states in Section 534.100-200, that all embankments have been designed with a 1.3 static safety factor.
- Primary roads shall be located to minimize erosion, insofar as is practicable, on the most stable available surface. In Section 534.100-200, the Applicant states the design plans. The Applicant complied with the general rules that are designed to help insure the above mentioned requirements are met.
- Fords of perennial or intermittent streams by primary roads are prohibited unless the Division specifically approves them. The Applicant does not plan to use fords in any stream.
- Each primary road shall be constructed or reconstructed, and maintained to have adequate drainage control. The Division considers that those general requirements have been met if the hydrology requirements have been met.

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- Primary roads shall be surfaced with material approved by the Division as being sufficiently durable for the anticipated volume of traffic and the weight and speed of vehicles using the road. The Applicant was not consistent with the description of the road surface. In Section 534.100-200, the Applicant stated that eighteen inches of crushed rock or gravel would be used for road surfacing. On Drawing 23, the Applicant does not list eighteen inches of road surface and states that gravel will be placed as needed.

The Division received several comments about truck travel through Panguitch. Some people would prefer that the truck traffic be routed around the town either by having the Applicant use alternative routes or by have a bypass road constructed. The Division does not regulate truck travel on public roads. The Division will forward the comments onto the Department of Transportation.

The Division received comments about commitments that the Applicant allegedly made about constructing a bypass road around Alton. The Applicant did not include that information in the submittal. The Division does regulate truck traffic on public roads including those through Alton. The Applicant did not indicate that any new roads will be constructed in this application, which the acceptance of the road realignment.

The Division received comments about coal being blown off the trucks as they travel on public roads. Truck traffic on public roads is regulated by the Department of Transportation. The Department of Transportation is responsible for ensuring that all truckloads are properly covered.

Performance Standards

The Applicant meet the requirements of this section. All roads road shall be located, designed, constructed, reconstructed, used, maintained, and reclaimed so as to:

- Control or prevent erosion, siltation, and the air pollution attendant to erosion, including road dust and dust occurring on other exposed surfaces. In Section 534.100-200 and 534-300-340, the Applicant discusses those requirements.
- Control or prevent damage to fish, wildlife, or other habitat and related environmental values. The Division considers that the general requirements are met if the biology requirements have been met.
- Control or prevent additional contributions of suspended solids to streamflow or runoff outside the permit area. The Division considers that those requirements have been met if the hydrology requirements have been met.
- Neither cause nor contribute to, directly or indirectly, the violation of State or Federal water quality standard applicable to receiving waters. The Division considers that those requirements have been met if the hydrology requirements have been met.

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- Refrain from seriously altering the normal flow of water in streambeds or drainage channels. The Division considers that those requirements have been met if the hydrology requirements have been met.
- Not locate any road in the channel of an intermittent or perennial stream unless specifically approved by the Division. In Section 534.100-200 and 534.300-340, the Applicant states that roads will not be located in stream channels.
- Prevent or control damage to public or private property, including the prevention or mitigation of adverse effects on lands within the boundaries of units of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including designated study rivers, and National Recreation Areas designated by Act of Congress. The Division considers that those requirements are met if the hydrology and biology requirements have been met.
- Use nonacid- and nontoxic-forming substances in road surfacing. In Section 534.100-200, the Applicant committed to that requirement.
- Maintain all roads to meet the performance standards of this part and any additional criteria specified by the Division. In Section 534.340 and Section 527.230, the Applicant committed to that requirement.
- A road damaged by a catastrophic event, such as a flood or earthquake, shall be repaired as soon as is practicable after the damage has occurred. The Applicant address that requirement in Section 527.230.

Primary Road Certification

The Applicant met the requirements that the plans and drawings for each primary road shall be prepared by, or under the direction of, and certified by a qualified registered professional engineer. A registered professional engineer certified drawing 22 and Drawing 23.

Other Transportation Facilities

The plan must include a detailed description of each road, conveyor, and rail system to be constructed, used, or maintained within the proposed permit area. The description will include a map, appropriate cross sections, and the following: specifications for each road width, road gradient, road surface, road cut, fill embankment, culvert, bridge, drainage ditch, and drainage structure; measures to be taken to obtain Division approval for alteration or relocation of a natural drainageway; a maintenance plan describing how roads will be maintained throughout their life to meet the design standards throughout their use; a commitment that if a road is damaged by a catastrophic event, such as a flood or earthquake, the road will be repaired as soon as practical after the damage has occurred; a report of appropriate geotechnical analysis, where approval of the Division is required for alternative specifications, or for steep cut slopes.

Findings:

The information provided in the application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-527.100, The Applicant must state specifically which roads will be classified as primary roads and which roads will be classified as ancillary. The Division will not accept a blanket statement that all future roads will be ancillary. In addition, some roads that are not used to haul coal or spoil might be primary roads. In addition, the Applicant must also classify the road that connects the site with Kane County Road 136. [WW]

R645-301-527.220, The Applicant should modify the comment in Section 527.200 of the PAP that "As currently planned, no natural drainage ways will be altered or relocated due to road construction," to acknowledge that there will be a permanent diversion in Lower Robinson Creek to allow for maximum economic recovery, but not to facilitate road construction. [WW]

R645-301-121.200, The Applicant was not consistent with the description of the road surface. In Section 534.100-200, the Applicant stated that eighteen inches of crushed rock or gravel would be used for road surfacing. On Drawing 23, the Applicant does not list eighteen inches of road surface and states that gravel will be placed as needed. [WW]

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Disposal Of Noncoal Mine Wastes

The Applicant met the requirements of this section. The Applicant outlined how they would comply with these regulations in Section 528.330 through Section 528.334.

Coal Mine Waste

The Applicant met the requirements of this section. The Applicant stated in Section 528.320 "Not Applicable". The Applicant does not anticipate that coal mine waste will be

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produced at the site. Coal mine waste is defined in R645-100 as coal processing waste and underground development waste. The Applicant does not anticipate underground development waste because only surface mining will be done and no coal processing will occur on the site.

Refuse Piles

The Applicant met the requirements of this section. The Applicant stated in several areas of the PAP, including Section 528.320 that no refuse pile would be needed.

Impounding Structures

The Applicant did meet the requirements of this section. The requirements make specific mention to new and existing impounding structures constructed of coal mine waste or intended to impound coal mine waste. The Applicant does not propose to construct such structures.

Burning And Burned Waste Utilization

The Applicant met the requirements of this section. The Applicant will not have coal mine waste at the site. See Section 528.320

Return of Coal Processing Waste to Abandoned Underground Workings

There are not underground workings at the site.

Excess Spoil:

The Applicant did not meet the requirements of this section. The Applicant described how the excess spoil would be handled in several sections of the PAP, including, 526, 528, 535, and 536.

- The Applicant will meet the requirement to minimize the adverse effects of leachate and surface water runoff from the spoil pile by meeting the hydrology and biology regulations.
- In Section 528.310 and 535.100, the Applicant states that spoil will be placed in lifts not to exceed four feet in thickness and meet a 90% compaction based on the standard Proctor tests. The Applicant needs to provide the Division with the specifications of the equipment that will be doing the compaction. The Division is unaware of any equipment that can compact lifts up to four feet thick and achieve a 90% Proctor. The Applicant stated that the slopes would have a minimum static safety factor of 1.5, see Appendix 5-1 for details. A registered professional engineer certified the plans.
- The pre-topographic maps and the reclamation maps show that the Applicant located the spoil pile in natural stable areas.

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- In Section 535.100-150, the Applicant committed to place excess spoil in horizontal lifts not exceeding 4 feet in thickness; concurrently compacted as necessary to ensure mass stability and to prevent mass movement during and after construction; graded so that surface and subsurface drainage is compatible with the natural surroundings; and covered with topsoil or substitute material.

In Section 528.200 of the PAP, the Applicant states that in Stage 3:

At the end of mining, an area will not be completely backfilled that is approximately 2,000 feet in length and 1,300 feet wide and will require....

Some delay is unavoidable in reclamation of the initial mining areas due to the time required to establish the initial working pit and backfill area....

In Section 542-100 through 600 of the PAP, the Applicant states:

Generally, mined areas will be backfilled and graded with approximately 180 days following coal removal, or 1,500 feet of the active coal removal face. One exception to the standard is during mining and backfilling of the final pits in the south end of the permit area. During this phase of mining, backfilling will follow approximately 2,000 feet from the active coalface.

The main reason for the exception is the Applicant's need to keep roads open. The 2,000 ft. X 1,300 ft. area is equivalent to 69 acres. The Division is willing to work the Applicant so that they can keep the road open during the final stages of mining. However, 69 acres is excessive and the Applicant should show that some backfilling and grading could take place in the pit during the final stages of mining.

In Section 553 of the PAP, the Applicant states in the section of the alternative reclamation scenario (federal lease not acquired at the end of the operation),

In this scenario, reclamation of the project area will be significantly delayed....

The Division cannot grant the Applicant's request of a significant delay because the request is too general. The Division would need a specific timeframe for the completion of backfilling and grading in the final pit and specific reasons why no other alternative is feasible.

The Division cannot allow the term "approximately" to define the amount of time between coal removal and rough backfilling and grading. The Applicant must remove the word "approximately."

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The Applicant must also state a time frame within which rough backfilling and grading will be accomplished in the southern pit.

Findings:

The information provided in the application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-535, In Section 528.310 and 535.100, the Applicant states that spoil will be placed in lift not to exceed four feet in thickness and meet a 90% compaction based on the standard Proctor tests. The Applicant needs to provide the Division with the specifications of the equipment that will be doing the compaction. The Division is unaware of any equipment that can compact lifts up to four feet thick and achieve a 90% Proctor.

R645-301-553 and 542.200, The Applicant will describe how and where the overburden will be placed for the initial box cut. • The Applicant must have a specific timetable for completing rough backfilling and grading in the PAP. • The Applicant must provide surveys of coal recovery at the end of each calendar month and show coal recovery on a plan view of the mining area at the end of each calendar month. • The Applicant must provide detailed descriptions of how overburden will be placed and provide documented data on a monthly basis of placed backfill volumes. • The Applicant must provided rough backfill volumes taken from the survey of contemporaneous cross sections showing toe of backfilled slope on latitudinal and longitudinal baskis in relationship to the coal seam being mined. • The Applicant must establish and follow a ground control plan for the safe control of all highwalls, pits and spoil banks, as approved by MSHA under 30 CRF77.1000 and the MSHA approved plan will be included as part of the mining and reclamation plan. • The Applicant has requested a variance from the 180 day requirement for contemporaneous backfilling and grading of the southern pit (69 acres in Phase 3), based upon the continued use of the area as a haul road. While reclaiming the road may not be practical, reclaiming areas away from the road might be feasible. The application should describe a time table for the requested variance and limit the acreage of variance to that needed for the road. [WW]

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Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

General

Discharges Into An Underground Mine

There are no underground mines in the area.

Gravity Discharges From Underground Mines

There are no underground mines in the area.

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Impoundments

The Applicant did not meet the following requirements:

- The Applicant will not construct any impoundment meeting the size or other criteria of 30 CFR Sec. 77.216(a).
- The Applicant had the designs for the four impoundment certified by a registered professional engineer. See Drawing 5-28 though Drawing 5-32.
- The Applicant provide slope stability analysis for the four sediment ponds that show. See Appendix 5-1.
- The Applicant discusses the freeboard designs in Section 743.120 of the PAP.
- The Applicant described the preparation of the impoundments' foundations in Section 533.200 of the PAP.
- The Applicant did not discuss rapid drawdown. The Applicant did discuss in Section 533.200 how the impoundment's slopes would be protected from erosion.
- The Applicant discussed how the impoundments' slopes would be vegetated and riprapped to protect against erosion.
- The Applicant described in Section 514.300 of the PAP how they would comply with the inspection requirements for impoundments.
- The Applicant described the emergency procedures if an inspection disclosed that a potential hazard at an impoundment existed in Section 515.200 of the PAP.

Ponds, Impoundments, Banks, Dams, and Embankments

The Applicant did not meet the minimum requirements of this section.

- The Applicant had the designs for the four impoundment certified by a registered professional engineer. See drawing 5-28 though 5-32
- The Applicant showed the location of the sediment ponds on Drawing 5-3 and Drawing 5-28 though Drawing 5-32.
- The Applicant did not include information about the effects of subsidence on impoundments because only surface mining will occur.
- The Applicant stated in Section 542 of the PAP that all sediment ponds expect those that would be retained, as part of the post mining land use would be reclaimed.

Findings:

The information provided in the application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-533.300, The Applicant must state how the impoundments will be protected from rapid drawdown. Rapid drawdown can occur in earth dams when rapid reductions in the water level produce dangerous changes in pore water pressure. This occurs because the water in the soil tends to flow back into the reservoir through the upstream face. In this scenario, even a period of some weeks may bring about a 'rapid' change in the pore water pressure distribution. [WW]

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

Analysis:

The Applicant did not meet the requirements of this section by providing a description, plans and drawings for the support facilities. The Applicant listed the support facilities in Section 526.220 of the PAP.

The Applicant should review the surface facilities plan and make sure that all facilities such as fences, gates, water lines, power lines and sewage lines have been included. The Applicant might need to include other items such as fences, gates, power lines, water lines, sewage lines and other items that might needed to be constructed.

Many comments were received concerning dust control and the implications for visibility in the area. The Applicant must give a detailed description of the specific dust control structures that will be installed. The information is required by R645-301-423 for surface mines exceeding 1 MT production and the Division needs that information to ensure fugitive dust is controlled.

Findings:

The information provided in the application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

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R645-301-526, The Applicant must list and show on appropriate maps all minor facilities at the site such as gates, power lines, water lines and sewage lines. In addition, the Applicant should remove the description of the surface facilities and from Section 521.180 and place them in Section 526. [WW]

R645-301-526.222 and R645-301-423, The Applicant must give a detailed description of the specific dust control structures that will be installed to ensure fugitive dust is controlled. [WW]

SIGNS AND MARKERS

Regulatory Reference: 30 CFR Sec. 817.11; R645-301-521.

Analysis:

The Applicant meets the requirements of this section. The Applicant's commitments to place signs and markers are listed in Section 521.200 through Section 521.270 of the PAP.

Findings:

The information provided in the application is considered adequate to meet the requirements of this section.

USE OF EXPLOSIVES

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

Analysis:

General Requirements

The Applicant met the general requirements. See Section 524 of the PAP. The general requirements include the use of certified blasters and blast designs. The Applicant does not anticipate the need for blasting. If the Applicant does find that blasting is needed then they will submit blasting plans.

The Division needs some additional information to respond to concerns raised by the USFS and other government agencies as well as private citizens. The main concern involves the

TECHNICAL MEMO

Applicant's claim that they will not use explosives. The Division needs the Applicant to provide supporting information for the claim that no blasting will be needed.

The Division acknowledges that the Applicant need not provide blasting plans as part of the initial mining and reclamation plan as stipulated by R645-301-524.220.

Preblasting Survey

The Applicant did not meet the requirements of this section. The Applicant states that when five pounds of explosives or blasting agents are used they will conduct a pre-blast survey, see Section 524.300 – 350 of the PAP.

R645-301-524.300 states, "The pre-blasting survey must be described in the permit application. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES pre-blasting surveys are required for blasts that use more than five pounds of blasting agent or explosives. The requirements are:" The five pound exclusion does not apply for surface mines and must be addressed.

General Performance Standards

The Applicant addressed the general performance standards in Section 524 of the PAP.

Blasting Signs, Warnings, And Access Control

The Applicant address those requirements in Section 525.500 – 532 of the PAP.

Control of Adverse Effects

The Applicant address those requirements in Section 524.600 – 610 of the PAP.

Records of Blasting Operations

The Applicant address those requirements in Section 524.700 of the PAP.

Findings:

The information provided in the application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

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R645-301-524.300, The Applicant must remove from Section 524.300 – 350 of the PAP the comments about supplying the Division with a blasting plan if five pounds or more of explosives or blasting agent is used. The exclusion applies only to underground mines. The Applicant must commit to supply the Division a pre-blast survey for any blasting.[WW]

R645-301-524 and R645-301-121.200, The Applicant must provide supporting information for the claim that no blasting will be needed during construction and operation of the mine. [WW]

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected Area Maps

The Applicant did not meet the requirements of this section of the regulations. Map 1-2, Project Area LBA shows the project area and the proposed expansion for the federal leases. Map 5-10, Coal Removal Sequence, does not show the anticipated dates for when coal would be mined in the expansion areas. The Division needs that information to do analysis that involves expansion of the permit areas.

Mining Facilities Maps

The Applicant did not meet the requirements of this section. The Applicant must label coal stockpile, conveyors and coal load out facilities on Drawing 5-3, R645-301-521.170.

Mine Workings Maps

The Applicant met the requirements of this section. There are no mines in or near of the permit area.

Certification Requirements

The Applicant met the requirements of this section. A registered professional engineer certified all appropriate maps.

Findings:

The information provided in the application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-521.132, The Applicant must update all permit area boundaries to show that the access road from the closed section of Kane County Road 136 to the mine site will be within the permit area. [WW]

RECLAMATION PLAN

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The Applicant did not meet the requirements of this section. The Applicant mentioned a request for a variance from the approximate original contour requirements in various sections of the PAP including, Section 512.260, Section 553.200, and Section 553.120. The Applicant stated and the Division acknowledged that due to the swell factor excess spoil would be generated.

The Applicant did not state what the variance would entail or why the Division should grant the variance. The Division acknowledges that due to the swell factor the pre-mining and postmining topographies will be different. AOC does not mean that the pre-mining and postmining topographies are the same.

The definitions of AOC are couched in terms of backfilling and grading in order to achieve certain results. The mining and reclamation plan must provide the basis for determining whether the proposed backfilling and grading plan will

- Minimize off-site effects.
- Achieve a final surface configuration that closely resembles the general surface configuration of the land prior to mining. Main concerns are slope length and grade, and do the drainage patterns tie into the surrounding drainages.
- Provide a subsurface foundation for a vegetative cover capable of stabilizing the surface from erosion.

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- Support the approved postmining land use.

Findings:

The information provided in the permit application is not considered adequate to meet the requirements of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-553.110, The Applicant must either show why a variance from the approximate original contour requirements is needed or remove the request from the application. Note: the presence of excess spoil at the site does not mean that the AOC requirements cannot be achieved. The Division suggests that the Applicant review the Division's Technical Directive 002. Placing excess spoil outside of the mined out area does not necessarily require a variance from the AOC requirements.[WW]

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

General

The Applicant did not meet the general backfilling requirements. The general backfilling and grading requirements are:

- Achieve the approximate original contour: The Division considers this requirement is met if the AOC requirements have been met.
- Eliminate all highwalls: The Applicant states in Section 553.120 of the PAP, that all highwalls will be eliminated. Drawing 5-35, Post Mining Topography – Preferred Scenario and Drawing 3-37, Post Mining Topography – Alternative Scenario, both show that all highwalls will be eliminated at final reclamation.
- Eliminate all spoil piles: The Applicant stated in Section 553.120, Section 553.200 and Section 553.210 of the PAP that all spoil will be properly handled. Drawing 5-35, Post Mining Topography – Preferred Scenario and Drawing 3-37, Post Mining Topography – Alternative Scenario, both show that all spoil piles will be eliminated.

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- Eliminate all depressions: The Applicant states in Section 542-100 through 600 that all depressions would be removed except small depression used to retain moisture, minimize erosion, create and enhance wildlife habitat or assist vegetation.
- Achieve a postmining slope that does not exceed either the angle of repose of such lesser slope as is necessary to achieve a minimum long term static safety factor of 1.3 and to prevent slides; minimize erosion and water pollution both on and off the site; and, support the approved postmining land use. In Section 553.130 of the PAP, the Applicant states that the postmining slopes will not exceed the angle of repose and that the slopes will have a long term static safety factor of at least 1.3. The Division considers that the erosion and water pollution will be minimized and that the site will be compatible with the postmining land use if the hydrology, vegetation and land use requirements have been met. The Applicant did not reference any of supporting calculations.

Previously Mined Areas

There are no previously mined areas within the permit boundaries.

Backfilling and Grading On Steep Slopes

There are not steep slopes within the permit area.

Special Provisions for Steep Slope Mining

There are no special provisions for steep slope mining.

Findings:

The information provided in the permit application is not considered adequate to meet the requirement of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-553.130, The Applicant must show that all reclaimed slope (including those not associated with the excess spoil area) have a safety factor of 1.3 or greater and that the slope angles are less than the angle of repose. The Applicant includes safety factor calculations for the excess spoil areas but did not mention the safety factors in other areas. One way to address the issue is to identify the slopes that would have the lowest safety factors (longest slope and steepest slope) and show that they meet the minimum safety factor requirements. In addition, the Applicant must also state why the reclaimed slope angles are less than the angle of repose.
[WW]

TECHNICAL MEMO

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

The Applicant met the requirements of this section. In Section 542.700 of the PAP, the Applicant states that they will comply with the requirements to seal wells and other underground opening unless otherwise approved by the Division. The Applicant might request later to leave some wells open for monitoring or water access.

Because the Applicant will only use surface mining methods there will be no shafts, drifts, adits, or tunnels.

Findings:

The information provided in the permit application is considered adequate to meet the requirement of this section.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

The Applicant did not meet the requirements of this section. The Applicant must state who will reclaim the segments of Kane County Road 136 that are in the permit area.

In Section 542-100 through 600, the Applicant committed to reclaim all roads as to the requirements of R645-301-542.600.

Retention

The Applicant did not meet requirements of this section. The Applicant made a general statement that road not to be retained for a postmining land use would be reclaimed. General statements like that cannot be included in the PAP. The Applicant must either state specifically

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what roads will be retained or remove the general statement. The Applicant can always modify the PAP if roads would be needed for the postmining land use.

Findings:

The information provided in the permit application is not considered adequate to meet the requirement of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-542.600, Maps and narrative in the application must describe reconstruction of County Road 136 to its original alignment as requested by the County. In addition, Applicant must state who will reconstruct those sections of Kane County Road 136 that will be closed to the public along with a timetable. • The Applicant must specifically state which roads will be retained along with the supporting documentation. The Division cannot accept blanket statements about how roads not needed for the postmining land use will be left.[WW]

CESSATION OF OPERATIONS

Regulatory Reference: 30 CFR Sec. 817.131, 817.132; R645-301-515, -301-541.

Analysis:

The Applicant met the requirements. In Section 515.300 of the PAP, the Applicant committed to follow the notification procedures and otherwise secure the site.

Findings:

The information provided in the permit application is considered adequate to meet the requirement of this section.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Affected Area Boundary Maps

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The Applicant did not meet the requirements of this section of the regulations. Map 1-2, Project Area LBA shows the project area and the proposed expansion for the federal leases. Map 5-10, Coal Removal Sequence, does not show the anticipated dates for when coal would be mined in the expansion areas. The Division needs that information to do analysis that involves expansion of the permit areas. The Division needs to the schedule for acquiring additional areas because the preferred reclamation scenario is based on the Applicant's ability to get additional areas.

Bonded Area Map

The Applicant did not meet the requirements of this section. The Applicant showed on Drawing 5-3 that access to the mine would be from a road branching off from a closed portion of County Road 136. That access road must be included within the permit area. In addition, the Applicant must also include within the permit area any portion of the County Road for which they control access.

Reclamation Backfilling And Grading Maps

The Applicant did not meet the requirements for this section. The Applicant did not include cross sections for the alternative backfilling and grading plan.

The Applicant provided two reclamation maps based on whether or not they can obtain additional lease. Drawing 5-35 shows the contours of the preferred reclamation scenario and Drawing 5-36 shows the cross sections. Drawing 5-37 shows the contours of the alternative reclamation scenario.

Reclamation Facilities Maps

The Applicant did not meet the requirements of this section. The Applicant must either state what specific facilities will remain after final reclamation and show the facilities on a map. If the Applicant plans to remove all facilities at final reclamation then they must state so in the PAP. Blanket statements leaving structures that are needed for the postmining land use are not acceptable.

Final Surface Configuration Maps

See the reclamation backfilling and grading maps section.

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Certification Requirements.

The Applicant met the requirements of this section. The Applicant had all pertinent maps and cross-sections certified by a registered professional engineer.

Findings:

The information provided in the permit application is not considered adequate to meet the requirement of this section. Before approval, the Applicant must provide the following in accordance with:

R645-301-521.141, The Applicant must show on Map 5-10 or a similar map the anticipated dates for when the Applicant would mine coal from the expansion areas. The Division needs that information to do analysis that involves expansion of the permit areas.[WW]

R645-301-521.132, The Applicant must update all permit area boundaries to show that the access road from the close section of County Road 136 to the mine site will be within the permit area.[WW]

R645-301-542.200, The Applicant must include cross sections that show how the site will be reclaimed in the event that the federal leases are not acquired.[WW]

R645-301-542.320, The Applicant must either list in the PAP or show on a reclamation map those facilities that will remain after final reclamation or state specifically in the PAP that all facilities will be removed at final reclamation.[WW]

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

General

The Applicant met the requirements of this section. The Division will process the permit application without requiring the Applicant to acquire a bond. However, the Division cannot issue a permit until the bond is posted.

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Form of Bond

The Applicant met the requirements of this section. The Division will process the permit application without requiring the Applicant to acquire a bond. However, the Division cannot issue a permit until the bond is posted.

Determination of Bond Amount

The Applicant met the requirements of this section. The Division will process the permit application without requiring the Applicant to acquire a bond. However, the Division cannot issue a permit until the bond is posted.

Terms and Conditions for Liability Insurance

The Applicant meet the requirements of this section. In Section 890.100 of the PAP, the Applicant stated that a copy of the certificate of insurance is in Appendix 1-4.

Findings:

The information provided in the permit application is considered adequate to meet the requirement of this section.

RECOMMENDATIONS:

The Division should deny the application until all of the above mention deficiencies have been addressed.